

(FILE 'HOME' ENTERED AT 13:52:28 ON 20 OCT 2006)

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L1 537 S GASP
L2 14 S L1 AND G-PROTEIN
L3 9 DUP REM L2 (5 DUPLICATES REMOVED)
L4 82002 S (G-PROTEIN OR GPCR OR (SEVEN TRANSMEMBRANE) OR HEPTAHELICAL O
L5 1576 S L4 AND DOWN REGULATION
L6 805 S L5 AND INHIBIT?
L7 295 S L5 AND (ENDOSOME OR LYSOSOME OR COMPARTMENT OR INTERNALIZ?)
L8 134 S L6 AND L7
L9 67 S L8 AND PY<2001
L10 42 DUP REM L9 (25 DUPLICATES REMOVED)
L11 26 S L5 AND PROTEASOME
L12 17 DUP REM L11 (9 DUPLICATES REMOVED)
L13 3 S L12 AND PY<2001
L14 614 S L5 AND (ENCHANCE? OR INCREASE? OR ACCELERAT?)
L15 342 S L14 AND PY<2001
L16 33 S L7 AND L15
L17 22 DUP REM L16 (11 DUPLICATES REMOVED)
L18 10 S L17 NOT L10
L19 3521 S L4 AND ADRENERGIC RECEPTOR
L20 63 S L19 AND L7
L21 9 DUP REM L2 (5 DUPLICATES REMOVED)
L22 43 DUP REM L20 (20 DUPLICATES REMOVED)
L23 20 S L22 AND PY<2001
L24 12 S L23 NOT L10
L25 89 S L4 AND OPIATE RECEPTOR
L26 1 S L25 AND L7
L27 0 S L25 AND PROTEASOME
L28 62 DUP REM L25 (27 DUPLICATES REMOVED)
L29 0 S L28 AND PY2001
L30 48 S L28 AND PY<2001
L31 48 S L30 NOT L10

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L3 ANSWER 9 OF 9 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
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forms supramolecular protein complex for intracellular sorting.

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AB GABAB receptors mediate the metabotropic actions of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA). GABAB receptors are the first 7-transmembrane G-protein coupled receptors that have been shown to require two separate subunits, GABAB-R1 (R1) and GABAB-R2 (R2), for functional surface expression. R1 subunit works as a GABA binding subunit, whereas R2 subunit activates effectors. Using a yeast two-hybrid approach, we have identified direct interaction between the C-terminal tails of R1 subunit and a novel 1115 amino acids protein partner via coiled-coil domains. The binding of this protein was specific to R1 subunit and not to R2 subunit. To gain further physiological insights into this protein and the interaction to R1 subunit, we tried to identify components in the protein complex. We actually found that several proteins controlling intracellular protein sorting bind to this protein. We named this novel protein as a GABAB receptor Anchoring Scaffold Protein (GASP). When GASP was fused to green fluorescent protein (GFP) and expressed in heterologous system, it retained in the intracellular membranous organelles. Since it has been demonstrated that R1 subunit has specific endoplasmic reticulum (ER) retention signal, the interaction is likely to be occurred on the ER membrane in vivo. We are now analysing this protein complex as a possible GABAB receptor sorting machinery to synaptic plasma membrane.